

NPDES  
INSPECTION REPORT

WASTEWATER TREATMENT FACILITY  
PIERCE, IDAHO

October 20, 2011

Prepared by:  
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Idaho Department of Environmental Quality

## Table of Contents

- I. Facility Information
  - II. Inspection Information
  - III. Inspection Entry
  - IV. Inspection Chronology
  - V. Owner and Operator Information
  - VI. Background
  - VII. Waste Management Process
  - VIII. Facility Sample Collection and Analyses
  - IX. Areas of Concern
  - X. Additional Observations
  - XI. Inspection Sampling
- Attachments
- A. Photograph Documentation

(Unless otherwise noted, all details in this inspection report were obtained from conversations with Mr. Eric Mason, wastewater treatment plant operator)

**I. Facility Information**

Facility Name:	City of Pierce, ID Wastewater Treatment Plant (Facility)
Facility Type:	Sewage Treatment Plant
Facility Location:	South of Orofino Creek on Fromelt Road Pierce, ID 83546 Latitude: 46° 29' 32' N Longitude: 115° 48' 02" W
Mailing Address:	P.O. Box 356 Pierce, ID 83546
Facility Contacts:	Eric Mason, Operator
Facility Numbers:	Ph: (208) 464-2222 Fax: (208) 464-2207
Permit Number:	ID-002020-6
Permit Status:	Permit became effective on May 1, 2004 and expired on April 30, 2009. The permit reapplication was submitted to EPA on November 5, 2008.
SIC Code:	4952

**II. Inspection Information**

Inspection Date/Time:	October 20, 2011 9:39 AM to 2:05 PM
Inspectors:	Jerry Shaffer (Idaho Department of Environmental Quality, Lewiston regional office)
Weather:	Partly cloudy and warm
Purpose:	Determination of compliance with the NPDES Permit and the Clean Water Act

### **III. Inspection Entry**

This was an announced inspection. The operator of the Facility was contacted by phone on October 18, 2011 and the time and date of the inspection was set.

I arrived at City Hall at 9:39 AM and met with Eric Mason, the onsite operator.

I discussed the purpose of the visit with Mr. Mason prior to the inspection. I was not denied access to the Facility.

I was accompanied throughout the inspection by Mr. Mason.

### **IV. Inspection Chronology**

On October 20, 2011, the inspection began with an entry interview, followed by a file review and tour of the Facility. The Facility tour included an inspection of the treatment unit operations and a review of the sample collection and analytical procedures at the onsite laboratory. As part of the file review, the Facility's quality assurance plan (QAP), the operations and maintenance (O&M) plan and discharge monitoring reports (DMRs) are reviewed. According to Mr. Mason, he is the certified operator responsible for sample collection, onsite analysis and filling out the DMRs.

The inspection then concluded with an exit interview where I pointed out the areas of concern I observed during the inspection.

### **V. Owner and Operator Information**

The Facility is currently owned and operated by the City of Pierce, Idaho.

### **VI. Background**

The permit authorizes the Facility to discharge to Orofino Creek through outfall 001. The Facility has a design flow of 0.30 million gallons per day (MGD) and an existing average daily flow of 0.60 MGD (the reported monthly average reported in the month evaluated for data quality later in the report). The Facility services a population of approximately 618.

The collection system is 100% separated sanitary sewer.

### **VII. Waste Management Process**

The Facility consists of a sewer lift station, comminutor (with bar screen bypass), extended aeration, clarification, disinfection by gas chlorination followed by contact time, final settling and discharge to Orofino Creek. Solids from the clarifier are diverted to sludge drying beds and removed and stored onsite.

At the time of inspection, all treatment units were operational. See Attachment A for photo documentation of the units.

### **VIII. Facility Sample Collection and Analyses**

The sample collection and analyses duties at the Facility are conducted by Mr. Mason, who is the certified operator responsible for sample collection, onsite analysis, and filling out the DMRs prior to the mayor signing and submitting them to EPA.

The parameters analyzed onsite using monitoring equipment include flow, temperature, pH and total residual chlorine (TRC).

Biochemical oxygen demand (BOD), total suspended solids (TSS), ammonia, and Escherichia coli (E. coli) are analyzed by an outside laboratory (i.e. City of Orofino wastewater treatment plant laboratory in Orofino, Idaho).

### **IX. Areas of Concern**

This inspection included a review of the treatment system, the sample collection and analyses procedures, and documentation required by the Permit. During the course of this inspection, I observed and identified the following areas of concern:

- A. Quality Assurance Plan (QAP): Part I.E of the Permit specifies that the permittee develop and implement a quality assurance plan (QAP) for all monitoring by November 1, 2004. At a minimum, the QAP must include the following:
  - a. Details on the number of samples, type of sample containers, preservation of samples, holding times, analytical methods, analytical detection and quantification limits for each target compound, type and number of quality assurance field samples, precision and accuracy requirements, sample preparation requirements, sample shipping methods, and laboratory data delivery requirements.
  - b. Map(s) indicating the location of each sampling point.
  - c. Qualification and training of personnel.
  - d. Name(s), address(es) and telephone number(s) of the laboratories, used by or proposed to be used by the permittee.

In addition, the permittee must use the EPA approved quality assurance/quality control (QA/QC) and chain-of-custody procedures described in EPA's Requirements for Quality Assurance Project Plans, EPA-QA/R-5 and Guidance for Quality Assurance Project Plans, EPA QA/G-5. The City was unable to locate a QAP for the wastewater treatment plant.

My concerns are that without a QAP the operator(s) are not following approved collection, transportation and analysis methods as required in the City's permit. In addition, sample collection and analysis data sheets did not contain required information such as sample collection location, time of sample collection, name of individual collecting the sample, date of sample analysis, name of individual performing the sample analysis, and the analytical method used.

**B. Surface Water Monitoring Requirements**

: Part I.C of the permit specifies that surface water monitoring must start in October 2004 and continue for 4 years. At the time of the inspection, the permittee could only locate sample results for October 2006 to October 2008, along with 2010. My concern is that a complete set of sample results are not available to give a true long-term representation of in-stream temperature, pH and ammonia concentrations over the course of a year.

Furthermore, since the permittee has no QAP, the samples that were collected and analyzed may not have been consistently collected and analyzed, providing false data for all or part of the sampling event.

Finally, the permittee was required to submit surface water monitoring results to EPA with the NPDES permit renewal application, with a copy submitted to IDEQ. The permittee was unable to locate a complete copy of the surface water monitoring results and could not show that it had been submitted as required. My concern is that representative in-stream water quality information was/is not available to EPA permit writers for the development of the next NPDES Permit.

**C. Reporting: Parts II.B and IV.E of the Permit specify that the permittee must summarize monitoring results each month on the DMR and sign and certify that the DMRs are true, accurate and complete. At the time of the inspection, the March 2011 DMR was reviewed along with the corresponding analytical data (i.e. operator's daily log book, certificate of analysis, chain of custody form...). The permittee used the average monthly flow to calculate loadings. I was unable to calculate the same monthly e-coli geometric mean as the permittee so I reviewed the method for determining geometric means with Mr. Mason and he was able to produce the same results as mine.**

**D. Twenty-four Hour Notice of Noncompliance Reporting: Part II.G of the Permit specifies the permittee must report the following occurrences of noncompliance by telephone within 24 hours from the time the permittee becomes aware of the circumstances:**

- a. any noncompliance that may endanger health or the environment;
- b. any unanticipated bypass that exceeds any effluent limitation in the permit (See Part III.F., "Bypass of Treatment Facilities");

- c. any upset that exceeds any effluent limitation in the permit (See Part III.G., "Upset Conditions");
- d. Any violation of maximum daily or instantaneous maximum discharge limitation for any of the pollutants in Table 1 of Part I.A.;  
or
- e. Any overflow prior to the treatment works, whether or not such overflow endangers health or the environment or exceeds any effluent limitation in the permit.

Mr. Mason stated that the permittee does not provide notification to EPA within 24 hours of the occurrence of the above situations.

**X. Additional Observations**

A. Retention of Records: Part II.F of the Permit specifies that non-sludge related records shall be retained for a period of at least five years (or longer as required by 40 CFR 503). During the inspection, Mr. Mason was repeatedly unable to locate records, reports, lab sheets and other information.

**XI. Inspection Sampling**

Samples were not collected at the time of this inspection.

Report Completion Date: Jerry Shaffer

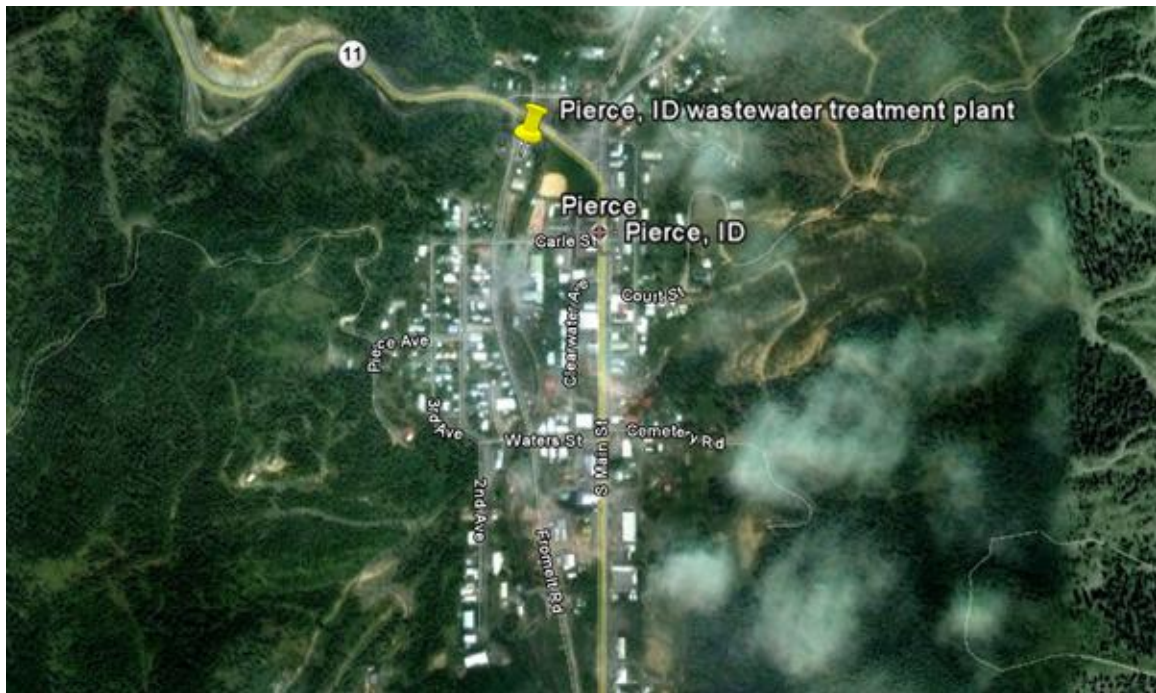
Lead Inspector Signature: November 19, 2011

## ATTACHMENT A

### Aerial Photographs

City of Pierce, Idaho  
Wastewater Treatment Facility

(October 20, 2011 Inspection)



Aerial photograph of the wastewater treatment plant in Pierce, Idaho.



Aerial photograph of the wastewater treatment plant in Pierce, Idaho.

## ATTACHMENT B

### Photograph Documentation

Wastewater Treatment Facility  
Pierce, Idaho  
(October 20, 2011 Inspection)



City of Pierce wastewater treatment plant sewer lift station at the head of the plant. Photo by Jerry W. Shaffer (DEQ) on October 20, 2011.



City of Pierce wastewater treatment plant sewer lift station at the head of the plant. Photo by Jerry W. Shaffer (DEQ) on October 20, 2011.



Interior of the City Pierce wastewater treatment plant sewer lift station at the head of the plant. Photo by Jerry W. Shaffer (DEQ) on October 20, 2011.



City of Pierce wastewater treatment plant with sewer lift station in foreground, chlorine injection point in the middle, with the final sedimentation basin in the background. Photo by Jerry W. Shaffer (DEQ) on October 20, 2011.



City of Pierce wastewater treatment plant chlorine injection point. Photo by Jerry W. Shaffer (DEQ) on October 20, 2011.



City of Pierce wastewater treatment plant access stairs to the wastewater package treatment plant. Photo by Jerry W. Shaffer (DEQ) on October 20, 2011.



City of Pierce wastewater treatment plant access to wastewater package treatment plant. Photo by Jerry W. Shaffer (DEQ) on October 20, 2011.



Nameplate on the City of Pierce wastewater treatment plant package treatment plant. Photo by Jerry W. Shaffer (DEQ) on October 20, 2011.



City of Pierce wastewater package treatment plant oxidation ditch. Photo by Jerry W. Shaffer (DEQ) on October 20, 2011.



City of Pierce wastewater package treatment plant oxidation ditch. Photo by Jerry W. Shaffer (DEQ) on October 20, 2011.



City of Pierce wastewater treatment plant oxidation ditch and clarifier (under roof). Photo by Jerry W. Shaffer (DEQ) on October 20, 2011.



City of Pierce wastewater treatment plant oxidation ditch and clarifier. Photo by Jerry W. Shaffer (DEQ) on October 20, 2011.



of Pierce wastewater treatment plant clarifier. Photo by Jerry W. Shaffer (DEQ) on October 20, 2011. City



City of Pierce wastewater treatment plant clarifier motor. Photo by Jerry W. Shaffer (DEQ) on October 20, 2011.



City of Pierce wastewater treatment plant return sludge pipe on wastewater package treatment plant. Photo by Jerry W. Shaffer (DEQ) on October 20, 2011.



City of Pierce wastewater treatment plant influent comminutor and bar screen bypass. Photo by Jerry W. Shaffer (DEQ) on October 20, 2011.



City of Pierce wastewater treatment plant influent comminutor and bar screen bypass. Photo by Jerry W. Shaffer (DEQ) on October 20, 2011.



City of Pierce wastewater treatment plant sludge drying beds. Photo by Jerry W. Shaffer (DEQ) on October 20, 2011.



City of Pierce wastewater treatment plant package treatment plant. Photo by Jerry W. Shaffer (DEQ) on October 20, 2011.



City of Pierce wastewater treatment plant gas chlorine room. Photo by Jerry W. Shaffer (DEQ) on October 20, 2011.



City of Pierce wastewater treatment plant gas chlorine room outside switches. Photo by Jerry W. Shaffer (DEQ) on October 20, 2011.



City of Pierce wastewater treatment plant gas chlorine room piping. Photo by Jerry W. Shaffer (DEQ) on October 20, 2011.



City of Pierce wastewater treatment plant gas chlorination room with chlorine cylinders. Photo by Jerry W. Shaffer (DEQ) on October 20, 2011.



City of Pierce wastewater treatment plant blowers. Photo by Jerry W. Shaffer (DEQ) on October 20, 2011.



City of Pierce wastewater treatment plant auxiliary power. Photo by Jerry W. Shaffer (DEQ) on October 20, 2011.



City of Pierce wastewater treatment plant chlorine contact basin. Photo by Jerry W. Shaffer (DEQ) on October 20, 2011.



City of Pierce wastewater treatment plant chlorine contact basin. Photo by Jerry W. Shaffer (DEQ) on October 20, 2011.



City of Pierce wastewater treatment plant chlorine contact basin with final settling basin in the background. Photo by Jerry W. Shaffer (DEQ) on October 20, 2011.



City of Pierce wastewater treatment plant final settling basin. Photo by Jerry W. Shaffer (DEQ) on October 20, 2011.



City of Pierce wastewater treatment plant discharge to Orofino Creek. Photo by Jerry W. Shaffer (DEQ) on October 20, 2011.



City of Pierce wastewater treatment plant discharge to Orofino Creek. Photo by Jerry W. Shaffer (DEQ) on October 20, 2011.